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# BULLETIN OF THE MASSACHUSETTS ARCHAEOLOGICAL SOCIETY

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Douglas S. Byers, Editor, Box 71, Andover, Massachusetts  
Winthrop F. Barden, Secretary-Treasurer, 198 South Main Street,  
Attleboro, Massachusetts

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## STYLES OF POTTERY IN CONNECTICUT

Irving Rouse

A recent survey of Connecticut pottery collections (1) has revealed a fundamental difference between the sherds from several sites in the vicinity of Norwich and those from elsewhere in the state. It is apparent that these two groups of sherds are the products of separate ceramic traditions. One of them is best represented by the collections from Fort Shantok near Norwich and the other by the material from South Windsor near Hartford (Fig. 1, J, A). (2) Accordingly, the two traditions will be termed respectively the Shantok and the Windsor styles. It is the purpose of the present paper to define these two styles and to discuss their significance.

Neither the Fort Shantok nor the South Windsor site has been scientifically excavated, but there are enough specimens from them in the Yale Peabody Museum and in private collections adequately to characterize their ceramic contents. (3) The following descriptions are therefore based primarily upon the potsherds from Fort Shantok and South Windsor; other material has been used only supplementarily.

The potsherds of the Shantok style are moderately tempered with small fragments of shell or, more rarely, of stone. These are evenly distributed throughout the coarse, flaky clay. The sherds average 6 millimeters in thickness, but some are no more than 2 or 3 millimeters. In color, they vary from dark grey to buff. Their surfaces are smooth uneven, and without blisters. They are soft, measuring between 2.0 and 2.5 on Moh's scale and have a soapy texture.

The fractures of Shantok sherds are extremely irregular and they overlap in several cases, suggesting that a haphazard moulding technique was used to build up the vessel walls. The latter are so uneven as to imply that they were shaped with the fingers or with a very small anvil. The walls were apparently scraped smooth with the frayed ends of sticks, traces of which still remain on the interior surfaces of

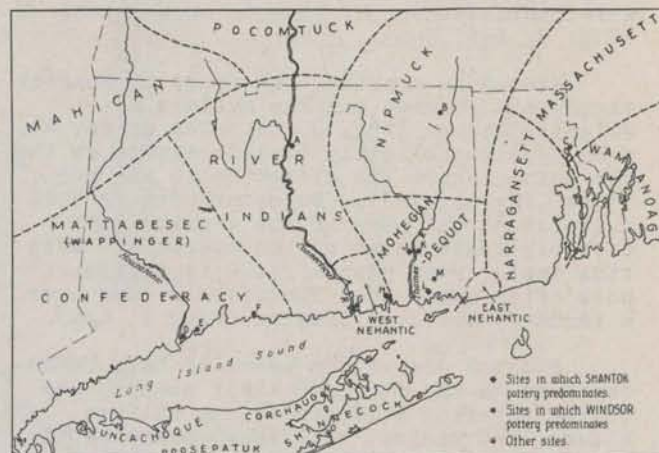


Fig. 1. Archaeological Sites and Tribal Groups in Connecticut. The following are the names and townships of the sites marked on this figure: A, South Windsor site, South Windsor. B, Pasto site, South Woodstock. C, Jones Pond site, East Providence. D, Eagle Hill site, Milford. E, Indian River site, Milford. F, Juniper Point site, Branford. G, Black Hill site, Old Lyme. H, Niantic site, East Lyme. J, Fort Shantok site, Montville. K, Starter's Wharf site, Groton. L, Noank site, Groton. M, West Mystic site, Groton. N, Cutchogue site, Southold. O, Sebonac site, Southampton.

several sherds. Most of the specimens bear firing clouds and a few are marked with soot.

None of the sherds is large enough to give a clear idea of the shapes of the pots but it is likely that they were deep vessels with globular bodies (Fig. 2, B). Shallow necks, surmounted by pronounced collars, are common (Fig. 2, B-C, L, and M). Characteristically, triangular bosses project from the bases of the collars onto the necks, where they have apparently been formed during the process of building up the

- (1) This survey was conducted as a part of the Yale Peabody Museum's program for archaeological research in Connecticut. For a preliminary report, see "Connecticut Pottery Types," 1940.
- (2) Willoughby seems to have been the first to single out the pottery of these two sites for comment. Willoughby, *Antiquities of the New England Indians*, 1935, p. 199.
- (3) I am indebted to Claude C. Coffin and Edward H. Rogers for permission to study their collections from Fort Shantok, and to Norris L. Bull and Benjamin Hubbell for the opportunity of examining the numerous South Windsor specimens in the former's Connecticut Archaeological Collections. For a summary of the work done at the site of Fort Shantok, see Peale, *Memorials and Pilgrimages*, 1930, pp. 47-48.



vessel wall (Fig. 2, A-C, F, L). Many of the collars are also bordered on the top, and in the absence of bosses, on the bottom as well, with ridges having a rectangular or a triangular cross section (Fig. 2, A-C, E, G, J-M). Rim points, or "castellations," project abruptly above the collars; there were probably four of them to each vessel (Fig. 2, A-B, G-L).

Viewed in profile, the necks of Shantok sherds are concave and the collars are slightly convex (Fig. 2, O). The latter tend to slope slightly inwards except at the rim point, where the direction is the reverse (Fig. 1, A-B). So pronounced is this distortion that many of the vessels were probably rectangular at the aperture. Most rims taper, even when a ridge is present. More often round than flat, their tops have a tendency to slope inwards (Fig. 1, L-M).

Shantok decoration seems to have been confined to the rims, to their points, and to the exterior surfaces of the collars, bosses, and ridges. All known examples of the body and neck are plain. The techniques of decoration include incision, punctation, the affixation of lugs, and a crude form of modeling. Incision was apparently done with a fine implement, possibly a shell or a chip of stone (Fig. 2, A-C, E-M). The punctations, on the other hand, are blunt; they may have been impressed with the end of a stick or a bone, held obliquely in order to elongate the hole (Fig. 2, A-C, H-M).

Both incision and punctation are present only in the form of hatching, in which the lines are arranged either horizontally, obliquely, or vertically (Fig. 2, A-C, E-M). On some sherds, they cover completely the features decorated (Fig. 1, F, L), but more often they are in the form of bands (Fig. 2, O-D, H). In either case, the hatched lines are all drawn in the same direction, or else groups of lines running one way alternate with one or more lines running in another direction (cf. Fig. 2, E and F). It is not uncommon for a band in which the lines all run one way to be placed above a band hatched in a different direction (Fig. 2, L-M). Another characteristic design consists of a single vertical line placed on top of a series of horizontal lines (Fig. 2, A-B, G-L). One unusual sherd is decorated with a banded chevron enclosing a vertical and a horizontal band (Fig. 2, M).

Small, modeled lugs, shaped in the form of human or animal heads, are affixed to several rim points (Fig. 2, H). In addition there is one unattached lug, cylindrical in shape, which might have been a leg (Fig. 2, D). Modeling was employed not only in the production of these lugs and of the bosses and ridges previously described, but also in the making of fillets, which are located

on the rim point or beneath it at the base of the collar. These are decorated with cross-hatching (Fig. 2, A-B, G, J-K) and some of them are split vertically (Fig. 2, A, L).

A clearly differentiated style is represented by the sherds from Windsor. These are more often tempered with stone than with shell. Small fragments of quartz, mica, and other rocks are unevenly distributed in moderate amounts throughout the finely granular clay. The sherds are thicker than the Shantok specimens, 8 instead of 6 millimeters being the common measurement. In color, the specimens vary from tan to brown; they have more of a reddish tinge than the Shantok potsherds. Their surfaces are smooth, uneven, and are often marked with blisters. They are soft, measuring between 2.0 and 2.5 on Moh's scale, and have a gritty texture.

The fractures of Windsor sherds are comparatively regular. Some show a tendency to parallel the rim, suggesting that a circling or coiling technique was used to build up the sides of the vessels. The strips of clay were apparently moulded together, for several of the fractures overlap. There is evidence that a rounded anvil, and also the fingers, were used to give the vessel walls their final shape. The surfaces were then scraped, perhaps with a frayed stick, traces of which appear on the interior surfaces of some sherds. Many specimens bear firing clouds and a few are marked with soot.

Several Windsor pots have been reconstructed, and in every case they are the deep vessels sometimes referred to as "cooking pots." (4) The bottoms are conical or, less often, round. The bodies vary from a cylindrical to an ovoid shape. In either case, there is usually a shallow neck (Fig. 3, B-C, K-L). A collar may also be present, but it is not typical nor is it so pronounced as on Shantok sherds (Fig. 3, E, G-H). Bosses are entirely absent and ridges are virtually so. Rim points occur somewhat more frequently, but are less prominent than on the Shantok specimens (Fig. 3, E, H).

Viewed in profile, the necks and collars of Windsor sherds are concave-convex (Fig. 3, G-H). Most sherds without collars slope outwards at the rim, but the collared specimens are inclined in the opposite direction (cf. Fig. 3, G and K). Since none of the rim points is distorted, the Windsor vessels probably lacked the rectangular aperture characteristic of Shantok pots (cf. Fig. 2, G and 3, H). Most of the rims are of the same, or of a greater thickness than the vessel walls; their tops tend to be flat and to slope outwards (Fig. 3, A-C)

(4) Examples from another site have been published in a *Bulletin* of the Archeological Society of Connecticut. Rogers, "The Indian River Village Site," 1943, Pl. 3.



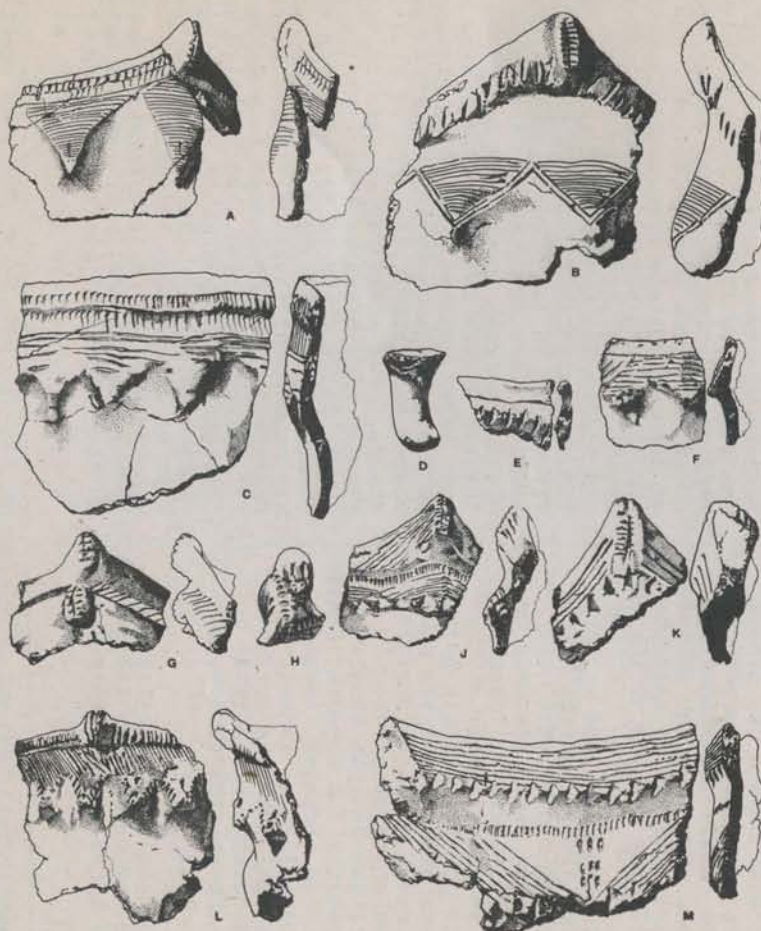


Fig. 2. Potsherds of the Shantok Style. Potsherds from the site of Fort Shantok near Norwich, Connecticut. Scale 1/2. (Yale Peabody Museum catalogue numbers: A, 10248; B, 10245; C, 10246; D, 10257; E-F, 10261; G, 10254; H, 10255; J, 10250; K, 10253; L, 10252; M, 10249.)

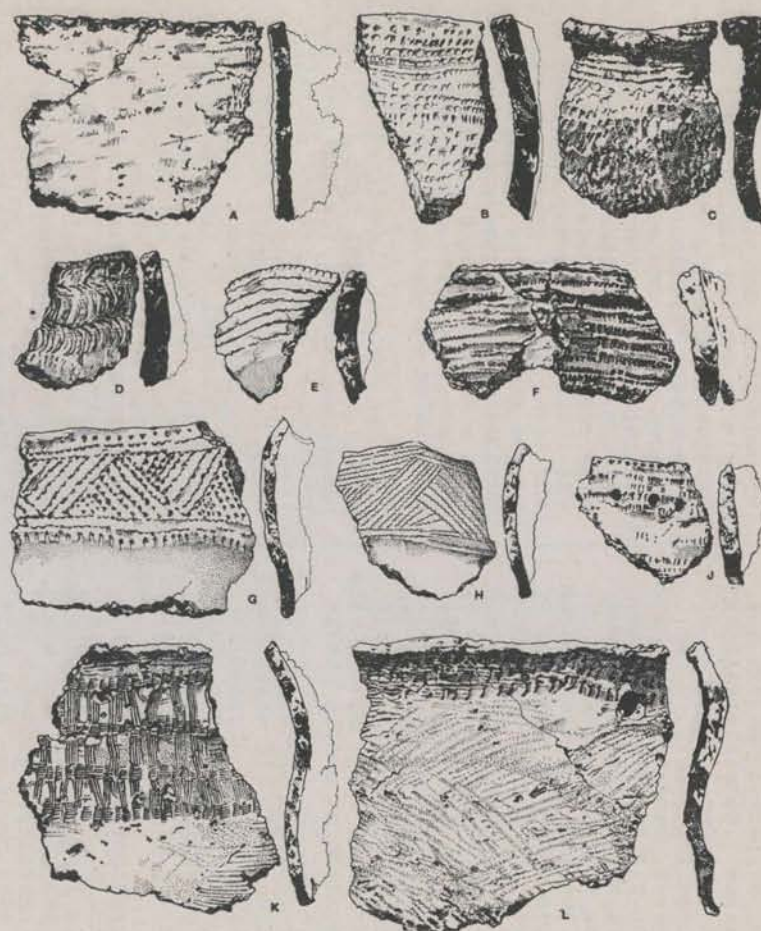


Fig. 3. Potsherds of the Windsor Style. Potsherds from the site of South Windsor near Hartford, Connecticut. Scale 2/5. (Yale Peabody Museum catalogue numbers: A-C, 2895; D, 2070; E, 2069; F, 2533; G, 2896; H, 2071; J, 2895; K, 2894; L, 2898.)



In connection with the decoration of Windsor pottery, it will be convenient to distinguish between surface treatment and the drawing of designs. Some Windsor sherds have plain, smooth surfaces like those of the Shantok specimens (Fig. 3, E, G, H). Most surfaces, however, have been roughened in some manner. On the interiors, which are more often left smooth, the treatment consists of scoring with a blunt stick. The exteriors and the rim tops bear traces of two kinds of treatment: the dragging of tools along the clay and the impression of objects into the clay. In some cases, the dragging seems to have been done with a blunt stick similar to that used to score the interiors of the vessels (Fig. 3, L). On other specimens, a sharp object has been used, and the surfaces are covered with a series of light scratches (Fig. 3, K). The sinuous edges of scallop or cockle shells have been dragged along the surfaces of several sherds, producing a series of shallow parallel lines. In all these cases, the lines are arranged in a haphazard fashion, and they seem to have completely covered the exterior surface of the vessel, often occurring on top of the rim as well.

Basketry impressions are common on Windsor sherds (Fig. 3, C). Some have a coarse and others a fine weave, the second of which may have been produced with some other fabric than basketry. A number of sherds are marked with cords or with cord wrapped sticks (Fig. 3, A, F). Two specimens bear bark impressions and two others, the imprints of leaves. Such impressions are always arranged in the same haphazard fashion as the lines and, like the latter, they probably covered the entire exterior of the vessel, including the top of the rim.

In contrast to the haphazard markings just described, some Windsor sherds bear designs, consisting of lines, dots, and dashes arranged more or less precisely in the form of geometric figures. These designs are limited to the exterior of the neck and collar, to the rim and its points, and to a narrow zone just inside the rim, occurring in some cases on plain surfaces and in others, upon surfaces previously roughened. Most of the designs consist of lines formed by pressing the edges of shells into the wet clay. In addition, there is some incision and punctuation, as well as the dragging of objects over the surfaces of the vessels. Modeling, which is so characteristic of the Shantok sherds, is completely absent.

It has been possible to identify many of the shells used for impressing designs. (5) Simple curved lines, for example, were

probably imprinted with the ends of razor clam shells (Fig. 3, D). Serrated and sinuous lines may have been produced with cockle or scallop shells, held obliquely or vertically (Fig. 3, G-H). The same shells have apparently been dragged along the surface of the sherds to produce light parallel lines, either continuous or broken (Fig. 3, K-L). Sticks or bones were probably put to a similar use (Fig. 3, B). The incising tools may have been either shells or chips of stone, for the lines are narrow and deep (Fig. 3, E). Some of the punctations are large and round, as if made with a blunt stick (Fig. 3, J). Others are tiny and triangular or rectangular, as if a splinter of bone had been used (Fig. 3, G).

The designs themselves consist primarily of horizontal rows of lines or impressions, these being arranged sometimes vertically, sometimes horizontally, and less often obliquely (Fig. 3, B, D-E, G, L). Broad horizontal bands of hatching are less common; they are sometimes composed of groups of parallel lines inclined in different directions as on Shantok sherds (Fig. 3, G, H). A special form of cross-hatching, in which groups of parallel lines are separated by spaces, is also characteristic (Fig. 3, K). There are a few triangular and rectangular figures, but anthropomorphic representations are missing.

To summarize, the Shantok potsherds are tempered primarily with shell and the Windsor specimens primarily with stone. The former are thinner than the latter, less reddish in color, and they have a soapy as compared with a gritty texture. The bodies of Shantok vessels were probably globular and of Windsor vessels, cylindrical or ovoid. Necks, collars, rim points, bosses, and ridges are common on Shantok sherds, but only the first three of these occur frequently in the Windsor collections and they are less pronounced. The walls of Shantok vessels apparently tended to slope inwards at the rim but Windsor rims were more often everted. Tapering, round rim tops are characteristic of Shantok potsherds and thick, flat tops of Windsor sherds. The apertures of Shantok vessels seem to have often been rectangular in shape, while those of Windsor pots were apparently always round. Shantok surfaces are smooth but those of Windsor sherds have ordinarily been roughened in some manner. Affixation, modeling, and incision are the characteristic techniques used to decorate Shantok potsherds; the impression and dragging of shells seem typical of the Windsor specimens. The designs consist in the former case primarily of hatched bands and in the latter, of horizontal rows of

(5) Coffin, "Impressed Shell Designs on Connecticut Indian Pottery," 1936, pp. 2-6.



impressions or lines. Some Shantok sherds bear anthropomorphic representations, but Windsor specimens never do.

As Willoughby has pointed out, (6) the Shantok potsherds have strong Iroquoian resemblances. At least so far as ceramics are concerned, the Shantok remains apparently conform to the Mississippi pattern, of which Iroquois culture forms a part. The Windsor specimens, on the other hand, are typically Algonkian and Woodland. (7) Iroquoian attributes, to be sure, are not entirely lacking from Windsor potsherds. This has suggested the possibility of dividing the Windsor style into two types, one purely Algonkian and the other with Iroquoian influences, (8) comparable to the units which have been set up for western Long Island and in Massachusetts. (9 & 10). So far, all attempts to make this distinction in Connecticut have met with failure, for every site from which an appreciable amount of pottery has been obtained has shown some of the supposed Iroquoian attributes. (11) For the present, therefore, it is necessary to consider the Windsor style an indivisible unit, comparable to the Shantok.

The Shantok style has a limited geographic distribution. At present, it is known to predominate only at the type site of Fort Shantok and at an unpublished shell heap near Noank (Fig. 1, J, L). In addition, possible trade sherds have been

collected from two sites in which the Windsor style predominates, the Starter's Wharf shell heap near Groton and a midden in West Mystic (Fig. 1, K, M). (12) The Windsor style, on the other hand, seems to be widely distributed throughout Connecticut. To mention only the sites besides South Windsor from which an unusually large number of examples have been collected, it occurs at Eagle Hill and Indian River in Milford, (13) at Juniper Point in Branford, (14) at Black Hall in Old Lyme, (15) at Niantic in East Lyme, (16) and at the Basto site in South Woodstock (Fig. 1, D-H, B). (17) It is evident that the Windsor style is the more characteristic of Connecticut; the Shantok tradition may be a restricted development, or it may be intrusive.

It will be noted that the areas of distribution of the two styles overlap along the estuary of the Thames River (Fig. 1). This suggests that the two were of different ages. No stratigraphic evidence of such a difference, however, has yet been discovered. The site of Fort Shantok itself is historic and has yielded many trade objects. So far as is known, the other sites containing Shantok potsherds are prehistoric. Similarly, potsherds representing the Windsor style have been found at both historic and prehistoric sites, Indian River and Juniper Point being examples of the former and the rest of the sites listed above, of the latter. There

- (6) Willoughby, Antiquities of the New England Indians, 1935, p. 199.
- (7) For a definition of the terms "Mississippi" and "Woodland" see Ritchie, "The Pre-Iroquoian Occupations of New York State," 1944, pp. 5-9, 26-57.
- (8) Rouse, "Some Suggestions as to Historical Perspective in Connecticut Archeology," 1939, pp. 21-23. See also Coffin, "Impressed Shell Designs on Connecticut Indian Pottery," 1936, pp. 2-4.
- (9) Smith, "Clues to the Chronology of Coastal New York," 1944.
- (10) Willoughby, "Pottery of the New England Indians," 1909, pp. 84-97. See also Howes, "Aboriginal New England Pottery," 1943, pp. 3-5.
- (11) The only possible exception is the Basto site near South Woodstock, where Iroquoian characteristics occur in the collection from the surface of the site and its vicinity but were not encountered during excavation. Praus, "The South Woodstock Site," 1945, pp. 41-42, 46.
- (12) A sherd found at the Indian River Village site near Milford and a complete vessel from a grave near Putnam, which Willoughby calls "Iroquoian," may also be representative of this style. Rogers, "The Indian River Village Site," 1942, Pl. 4:22; Willoughby, "Pottery of the New England Indians," 1909, pp. 100-101.
- (13) Coffin, "A Prehistoric Shell Heap at the Mouth of the Housatonic," 1937; Rogers, "The Indian River Village Site," 1943, pp. 56-63, Pls. 3-5.
- (14) Rowe, "Excavations at Juniper Point," 1944.
- (15) Praus, "Excavations at the Old Lyme Site," 1942, pp. 45-51, Fig. 13.
- (16) A report on this site is in the course of preparation by Edward H. Rogers.
- (17) Praus, "The South Woodstock Site," 1945, pp. 23-24, 32-33.



can be little doubt, therefore, that both styles persisted from prehistoric until historic times.

Fort Shantok was built by the Mohegan under the leadership of their sachem Uncas, after they had separated from the Pequot during the first years of European contact. (18) The other sites which have yielded Shantok pottery are also within the Mohegan-Pequot territory, as it existed before 1630 (Fig. 1). Hence, it seems logical to attribute the Shantok style to the Mohegan-Pequot and to correlate the Windsor style with the rest of the Indians in Connecticut.

It is generally agreed that the Mohegan-Pequot were intrusive into Connecticut. (19) Their traditions refer to a homeland in the Hudson River Valley, where some authorities believe that they were related to the Mahican (Fig. 1). Reacting to pressure from the Mohawk (Iroquois), they are said to have migrated through Massachusetts and down the valley of the Thames River, occupying the central part of the territory of the Nehantic and splitting that group in two (Fig. 1).

This theory of migration is consistent with the archaeology. It explains not only the Iroquoian character of the Shantok potsherds and their great divergence from the Windsor specimens but also their restricted distribution and the fact that the Shantok area contains Windsor sites. So far as the writer is aware, finds of Shantok pottery have not yet been made along the supposed route of migration through eastern New York and western Massachusetts. Nevertheless, it seems likely that the Mohegan-Pequot acquired or developed the Shantok style at a time when they were in closer contact with the Iroquois, and that they brought it with them when they invaded the territory of the Nehantic.

Despite the absence of Shantok finds outside Connecticut, two sites, one in eastern Massachusetts and the other on Long Island, do have strong ceramic resemblances with Fort Shantok. The Massachusetts site, which has been destroyed,

was on the banks of the Cape Cod canal. Among other ceramic specimens, it has yielded a complete pot with smooth, globular body, a pronounced neck and collar, a ridge, and a rectangular aperture marked by exaggerated rim points. The collar is decorated with an elaborate incised design and with small modeled faces. (20) All these are attributes of the Shantok style, but until more examples are published, it is impossible to say whether the style was actually present on Cape Cod. It may be instead that the Shantok and Cape Cod styles were separately derived from a common Iroquoian source.

The name of the Long Island site which has resemblances with Fort Shantok is Cutchogue and it is near Mattituck on Peconic Bay near the eastern end of the island (Fig. 1, N). According to Smith, its pottery is unlike the usual material in eastern Long Island. (21) The sherds are shell tempered and they lack the reddish brown tones found elsewhere. The vessel bodies seem to have been smooth and globular, the necks constricted, and the collars and rim points pronounced. Incision, punctation, and the impression of shells occur on the collars; the rim points are decorated with fillets. Except for the shell impressions, these are all Shantok traits, and they suggest that the Cutchogue pottery was of the same style. As in dealing with the Cape Cod site, however, we have no information about the presence or absence of many other Shantok traits, and therefore we cannot as yet establish a definite relationship between the Cutchogue and Shantok pottery.

It is perhaps worth noting that the Cutchogue site resembles Fort Shantok in several respects other than ceramics. Both sites were fortified—an unusual custom in their respective areas. (22) Both have yielded many trade objects and large amounts of wampum. At both sites, projectile points seem to have been relatively rare. (23) These resemblances strengthen the case for relationship between the two sites.

- (18) Peale, Uncas and the Mohegan-Pequot, 1941, pp. 52-60, 172-175; Speck, "Native Tribes and Dialects of Connecticut," 1928, p. 258.
- (19) De Forest, History of the Indians of Connecticut, 1851, pp. 59-62; Peale, Uncas and the Mohegan-Pequot, 1941, pp. 27-28; Speck, "Native Tribes and Dialects of Connecticut," 1928, pp. 216-219.
- (20) Douglas S. Byers in Smith, "Notes on the Archaeology of Long Island," 1944, p. 58.
- (21) Smith, "Notes on the Archaeology of Long Island," 1944, pp. 56-57. See also his "Clues to the Chronology of Coastal New York," 1944, p. 94, Pl. 9:1-2. Two vessels from Montauk are said to be the only similar specimens. Saville, "A Montauk Cemetery at Easthampton, Long Island," 1920, pp. 87-88, Fig. 1.
- (22) It is said that the English helped the Mohegan to fortify Shantok. Peale, Uncas and the Mohegan-Pequot, 1939, p. 56.
- (23) So far as the site of Cutchogue is concerned, these data are derived from Smith's "Notes on the Archaeology of Long Island," 1944, pp. 56-57. The occurrence at Fort Shantok of the traits enumerated is recorded in unpublished material at the Yale Peabody Museum.



Most previous authors have attributed the site of Cutchogue to the Corchaug Indians, who controlled that part of Long Island at the time of historic contact (Fig. 1). (24) Smith, on the other hand suggests the possibility that Cutchogue was settled by Pequot Indians from Connecticut. (25) Unlike the Mohegan, who were allied with the early settlers, the Pequot chose to oppose European domination. Following a series of bloody battles in 1637, they were dispersed and a number of them took refuge on Long Island. (26) They probably arrived there before 1639-40, the earliest definite historical reference to the site of Cutchogue, (27) and therefore it is entirely possible that they introduced the supposed Shantok traits which have appeared at Cutchogue.

There is little evidence concerning the distribution outside Connecticut of our second style, the Windsor. Three sites are perhaps worth mentioning in this connection: the Jones Pond shell heap in East Providence, Rhode Island, (28) the Hornblower shell heap on Martha's Vineyard, (29) and the Sebonac (Shinnecock) shell heap on eastern Long Island (Fig. 1, C, O). (30) Both stone and shell temper are common at all three of these places; where data are available, the bodies seem to have been cylindrical or ovoid rather than globular. Necks, collars, rim points, and ridges are absent; the surfaces of most sherds are roughened; and the impression or dragging of shells seems to be typical of the decoration. All these are attributes of the Windsor style, and they suggest that the latter may have been widely distributed through southern New England and on eastern Long Island. Until data are available for a more detailed comparison, however, this

suggestion must be regarded with suspicion. For the present, we can only state that the Windsor pottery, like the Shantok, has resemblances outside Connecticut.

A number of writers have come to the conclusion that southern New England is closely related to eastern Long Island, not only in archaeology but also in ethnology and linguistics. (31) The analogies drawn above between the Shantok and Cutchogue, and the Windsor and Sebonac pottery support this conclusion. It cannot be coincidence that both of the Connecticut styles correlate with material on eastern Long Island.

To summarize, our study of the potsherd from two groups of Connecticut sites has revealed the existence of separate ceramic traditions, which have been named the Shantok and Windsor styles. These two styles have been attributed respectively to the Mohegan-Pequot and to the other Indians of Connecticut. In explanation of the differences between the styles, we have cited the Mohegan-Pequot tradition of migration from eastern New York into Connecticut under pressure from the Iroquois. We have also noted analogies to the two styles in the pottery of Rhode Island, southeastern Massachusetts, and eastern Long Island. These analogies strengthen the conclusion of previous writers that the areas in question were closely related during prehistoric times. It is hoped that this paper will stimulate further study of the nature and distribution of the styles.

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(25) Smith, "Notes on the Archaeology of Long Island," 1944, 58.  
(26) De Forest, History of the Indians of Connecticut, 1851, p. 152; James Mooney in Hodge, "Handbook of American Indians North of Mexico," 1910, pt. 2, p. 230. These battles are known as the Pequot War and not, as Smith states, King Phillip's War. The latter took place thirty-eight years later and in Massachusetts and Rhode Island rather than Connecticut. Smith, "Notes on the Archaeology of Long Island," 1944, p. 56.  
(27) Tooker, Indian Place Names on Long Island, 1911, 56-58. Bolton gives a somewhat different summary of the historical references to this site, but his data are not to be trusted, for he apparently confuses Cutchogue with the site at Fort Neck on the southwestern shore of Long Island. Bolton, "New York City in Indian Possession," 1920, pp. 276-277, 315.  
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New Haven, Connecticut  
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## HEARD POND INDIAN SITE

C.C. Ferguson

Running along the whole west side of Heard Pond, Wayland, for fully a mile is an Indian site broken only twice by a swamp and by a small stream entering the pond. The main part of the location, is an elevated bluff rising abruptly from the pond and sloping off on its north and south sides. This area, narrow toward the pond, widens as it extends westward into a level plain of several acres of fine gravelly soil, free from stones, splendidly adapted to the primitive agriculture of the Indians and to modern market gardening. Sloping as it does on three sides toward the pond, the small brook, and toward Sudbury River on the south, the site was admirable for defense. For water, it had the pond in front, the brook on one side and another small pond or large spring on another side.

The land has probably been under cultivation for at least one hundred years, and during that time many hundreds of Indian artifacts have been picked up when the land has been plowed. About 1928 I began going there with L.K. Gahan of Worcester. He and Ben Hildreth of Holliston had already gone over the cultivated ground and found many gouges, plummetts, arrowheads, etc.

There was a narrow strip about 200 or 300 feet long by 100 wide near the overhanging edge of the bluff by the pond, partly covered with trees, bushes, and thick sodded "deer grass". This did not appear to have been recently, if ever, cultivated. It was this strip that Mr. Gahan and I had permission to dig over. For the next ten years we worked there off and on, I rather more than he. The following is a brief summary of the results we had, but without comment.

(1) Many reddened firestones and some fireplaces with their stones in place.

(2) Probably at least 30 refuse or corn pits, cylindrical, rounding at the bottom, about 3 ft. in diameter by 3 deep. In every case the bottoms had blackened earth containing much refuse vegetable matter. None of these contained any artifacts.

(3) Several caches of blanks and partly finished implements, the largest contained 27 pieces. Some of these were leaf-shaped and others unshaped, evidently laid away to be finished later. The materials were quartz, quartzite, porphyry and impure jasper.

(4) No celts, pipes, and no large pestles and only about 4 fragments of gorgets. Only one large pestle was picked up elsewhere on the field.

(5) One small polished axe very nicely finished, one grooved sinker and one grooved hammer head. A few other axes polished or chipped were found elsewhere on the plowed ground.

(6) Two nicely sharpened and polished chisels. One of these had its poll in the shape of a rodent's head in profile, the other had a slant edge.

(7) Many fragments of the long perforated artifacts listed as whetstones by Mr. Willoughby. Also many thin, fine grained stones, very evidently from their wear used as sharpeners. These latter showed much usage.

(8) There were many crude chipped picks evidently used in soapstone quarrying. One very fine pecked pick was found on the surface back of the excavation.

(9) One scalloped perforated earring of slate, and two to four partly finished ones. All were relatively small, not over two inches in diameter. Three others, scalloped and plain, were picked up on the field.

(10) Two whole ulus and over 15 halves and fragments of other ulus. These were in every stage of finish, pecked, pecked and polished and finely polished and finished. of red, green, and black slate. Two complete small ulus and at least two halves were obtained on the surface behind the excavation. One of the latter was the smallest I have ever seen and the other had the so called "tally marks;" they were both with and without the raised polls.

(11) At least 8 or 10 fragments of bannerstones and 3 crudely chipped and notched ones. These represented different types, whale tail, semilunar, and notched and perforated. As many more were found elsewhere on the plowed ground. The perforated ones were rectangular, pick shaped, spherical and plano-convex.

(12) Several nicely polished balls and a finely chipped one. These were small, evidently being "game" stones of some kind. Also many much larger spherical stones, roughly chipped and evidently used as hammers and clubs or both. The latter were



of quartz, crude jasper, and a fine grained green slaty material, and ranged from 1½ inches to 2½ inches in diameter.

(13) Several leaf-shaped and rectangular thin tablets of slate. One of the rectangular specimens was about 2 inches by 3 by ½, finely polished of banded slate. None of these were perforated. One showed plainly scratches evidently made by some objects it was being used upon.

(14) Many fine pieces of graphite, some pointed as pencils, some rounded for marking or for painting and one larger specimen showed the striations made by cord smoothing. These were all small and were generally nicely smoothed. A fragment of a graphite semilunar bannerstone was dug up also.

(15) Only 5 or 6 whole spearheads, none over 5 inches. Not many were picked up on the surface elsewhere.

(16) No whole piece of pottery was found. Several sherds of both clay and soapstone, about an equal number of each, perhaps 15 to 20 of each, of various sizes. The soapstone was finely finished, of a fine-grained, heavy material, the specimens were of large vessels and were quite thick. The clay was decorated and undecorated in different specimens. Sand had been used with the clay before firing. The coloring was yellowish brown, with some blackened on the inner sides.

(17) A very large number of knives of various shapes, leaf shaped, stemmed, notched, and in the shape of large chips with one rounding edge nicely chipped to a sharp edge. Some were nearly semilunar. Practically every type of a stone knife was represented.

(18) There was also a great number of scrapers, large and small, stemmed, beveled, notched, etc. These were mostly small and probably used for skin cleaning before tanning, and may have been hafted or unhafted. A few were large, rectangular and with only one edge so chipped as to be sharp. These latter could be classed equally well as knives.

(19) Hammerstones of every shape and many sizes. Some were oval, nicely finished and showing much wear on their perimeters, others were cylindrical but short, still others were crudely chipped from a fine grained igneous rock but showed much battering. A few smaller ones were adapted for hafting. No pitted one was dug up and only one was found on the surface.

(20) Several large cores of quartz, weighing several pounds each, and showing where the blanks had been removed. These were the best cores I have ever found.

(21) About 12 knobbed plummets, all nicely finished, of various shapes, spherical

bear shaped, lemon shaped, top shaped, curved, asymmetrical, etc. None was large. About as many were found on the open fields. The number was only second to that of the gouges among the larger artifacts found.

(22) Over 20 gouges ranging from 2½ to 6 inches in length, mostly with finely sharpened edges, some however had the edges much blunted with use. One was pecked but left unfinished, and one was being re-edged when laid aside. None of these were ringed. Those found elsewhere numbered as many more, with only one ringed. Many of both lots were short and notched for hafting. Some had been broken, and the broken off edge part notched for this hafting. Some of the edges were wide, some narrow, some fluted, some thin and others thick. The polls were stemmed, knobbed, plain, and one had in profile a bear's head. Another was evidently a one-hole gorget with the wider end worked into a gouge. The gouges were much the most common of the larger implements found; over 45 having been found on the surface and from the digging. Hardly any showed weathering, and most must have been nearly exactly as when left. They were not over a foot below the surface. In one case two came out with the same shovel full.

(23) Over 30 drills were dug up, representing about every type from ½ inch to 3 inches in length. Some were needle-like. A wide variety of material was represented, quartzite, quartz, slate, felsite, jasper, trap, etc. Many showed fine workmanship and were as perfect as could be, having apparently never been used. Rectangular and oval bases predominated. Only a few bases were notched and barbed.

(24) In comparison with the number of chipped implements there were relatively few chips. Many hundred arrows both on the surface and in the digging were found. These represented all types and materials, though fewer were of flint and jasper mostly they were white quartz, quartzite, and felsitic material. There was not much slate. The material found in the subsoil was much more weathered, of a different and poorer substance or stone. In some cases it appeared almost schistose. The arrows themselves at this level were cruder and appeared much older. I have about 100 of this latter type and stone. On the upper levels the arrowheads were generally finely finished. Triangular were no more and no less common than the slender stemmed. As a whole I have never seen New England arrowheads of finer workmanship than those dug up here.

(25) In conclusion:- We found:

- (1) A predominance of what Mr. Willoughby calls pre-Algonquin artifacts; gouges, plummets, ulus, bannerstones, whetstones (perforated).
- (2) Relative scarcity of celts, axes, grooved sinkers, pipes, gorgets, pestles.



(3) Sherds of soapstone and clay about equally common and not infrequent and not crudely finished.  
 (4) Hammerstones, balls, common.  
 (5) Chipped knives and scrapers very common.  
 (6) Fine workmanship displayed in nearly all artifacts.

(7) No bone or shell.  
 (8) Small pieces of graphite for pencils, painting and smoothing.

Millbury, Massachusetts  
 November, 1944

SWEAT-HOUSES IN THE SOUTHERN NEW ENGLAND AREA

Eva L. Butler

From the number of old deeds mentioning sweat-houses, and from the number of places still called by some variation of "Pesuponck", the Narraganset word for sweat house, (1) it is obvious that sudatories or "hott houses", as many of the colonists called them, played an important part in the lives of the Algonkian Indians in the Southern New England section of the Middle Atlantic Slope area.

The locations where sweat-houses stood in Thompson and Portland, Connecticut are still pointed out. Pattaquonk Hill in Chester has kept its name but the spelling has been changed many times. Padaconk Hill in East Lyme later became known as Sergeant's Head. Pattaquonset, or Pattaquanset pond in East Lyme, a little west of Black Point, was according to Trumbull, probably "a diminutive of Pattaquonk, with the locative suffix 'at, or near, the small round place'...hill, wigwam, or sweat-house". (2) The sweat-house site on the borders of the Pawtuxet river, near Pontiac Mills in Rhode Island was known as Petaquonset or Peteconset Bottoms. (3) Several Mohegan-Pequot deeds mention sweat-houses. Daniel Comstock in 1730 deeded to his son John, land on the Thames River in what is now the town of Montville. It was "a piece of meadow, to witt, fresh meadow at a heap of stones at a place called the Hot House." (4) When the

bounds of the land belonging to the heirs of Samuel Stanton and Samuel Stanton, Jr. were determined in 1745, the line was run from the "Place where the Hot House brook Impties into Pocatuck River", (5) in the town of Stonington.

Pesapunganute in Groton, Connecticut lost its identity, but its recent excavation disclosed the need for information regarding the sweat-house trait in the Southern New England cultural horizon and has moved the author to assemble references from early sources.

When the new highway was laid out between the villages of Mystic and Noank in the town of Groton, it skirted the edge of an Indian burying ground, went through the middle of a camp site and obliterated the Indian spring at the head of a cove known as "Beebe's Cove" in modern times but in the early records called by the Indian name of "Pespaunganute". (6)

On February 6, 1653/4, John Gallup, who gave valuable assistance to the English in their Indian wars, acquired from the town of "Pequit", later New London, "all the meadow in several peeces at Misticke lying betwixt the head of the Coave that is upon the westward of the neck to the head of another Coave upon the eastward of the

- (1) Roger Williams, "A Key into the Language of America", p.158, (1643). Rhode Island Historical Society Collections, Vol.1, 1827.
- (2) J.H. Trumbull, Indian Names of Places, etc. in and on the Borders of Connecticut. Hartford, 1881.
- (3) Usher Parsons, Indian Names of Places in Rhode Island, p. 23, Providence, 1861.
- (4) Land Records, Vol. IX, p. 149, City Hall, New London, Connecticut.
- (5) Land Records, Vol. V, p. 470, Town Hall, Stonington, Connecticut.
- (6) Land Records, Vol. I, p. 816, Town Hall, Groton, Connecticut



neck yt a run of fresh water runs into wch is neere to an Indian hott house." (7) The Gallups kept their meadow for many years, but in 1728, John Gallup's grandchildren sold the northermost piece on the east cove to James Packer. (8) From these references and from deeds of the surroundland, it was possible to find the approximate location of this sweat-house.

Roger Williams account of sweating is one of the earliest and probably the most detailed. (1643) Williams said that "Pesuponck" was the Narraganset word for "an Hot-house"; "Npesuppaumen" meant "I goe to sweate"; and that "Pesuppaug" was "They are sweating". He described the "hot-house" as "a kind of little Cell or Cave, six or eight feet over, round, made on the side of a hill (Commonly by some Rivulet or Brooke)". The men frequently entered it after they had "exceedingly heated it wth store of wood, laid upon an heape of stones in the middle. When they had taken out the fire, the stones keep still a great heat; ten, twelve, twenty more or lesse enter at once starke naked, leaving their Coats, small breeches, (or aprons) at the doore, with one to keepe all: here do they sit around their hot stones an houre or more, taking tobacco, discoursing and sweating together; which sweating they use for two ends: First to cleanse their skin: Secondly to purge their bodies, which doubtless is a great meanes of preserving them, and recovering them from diseases, especially from the French disease, which by sweating and some potions, they perfectly and speedily cure: when they come forth (which is matter of admiration) I have seen them runne (Summer and Winter) into the brookes to coole them, without the least hurt." (9)

In his account of the Indians of southern Maine and northern Massachusetts (1675) Josselyn wrote that the powwaws or "Priests" used to "cure sometimes by charms and medicine, but in a general infection they seldom come amongst them, therefore they used their own remedies, which is by sweating &c. Their manner is when they have plague or smallpox amongst them to cover their Wigwams with Bark so close that no Air can Enter in, lining them...within, and making a great fire they remain there in a stewing heat till they are in a top sweat, and then run out into the Sea or River, and

presently after they come into their hutts againe they either recover or give up the Ghost." (10)

In his biography of John Eliot, Cotton Mather (1702) included a few notes on the use of sweat-houses. In speaking of medicinal practices of the Indians, he said, "Their physick is, excepting a few odd specificks, which some of them encounter certain cases with, nothing hardly but an hot-house or a powaw; their hot-house is a little cave, about eight foot over, where, after they have terribly heated it, a crew of them go sit and sweat and smoke for an hour together, and then immediately run in- to some very cold adjacent brook, without the least mischief to them; it is this way they recover themselves from some diseases, particularly from the French disease. (11)

Samuel Niles (1760) in his history of the French and Indian Wars, said in connection with the use of a sweat-house on Block Island by Ninegret, Sachem of the Nehantic Indians, when there was a war threat, that "it may not be amiss to acquaint my readers with the make, use and design of the hot houses among the aboriginal natives in this country, and perhaps in others also. They were made as a vault, partly under ground, and in the form of a large oven, where two or three persons might on occasion sit together, and it was placed near some deapth of water; and their method was to heat stones very hot in the fire, and put them into the hot-house, and when the persons was in, to shut it close up with only so much air as was necessary for respiration, or that they within might freely draw their breath. And being thus closely pent up, the heat of the stones occasioned them to sweat in a prodigious manner, streaming as it were from every part of the body; and when they had continued there as long as they could well endure it, their method was to rush out and plunge themselves into the water. By this means they pretend a cure of all pains and numbness in their joints and many other maladies." (12)

In 1725 an account of sweating written by Paul Dudley, son of a former governor of Massachusetts, appeared in the journal of the Royal Society. He said, "Houses to sweat in were common among the Aborigines when the English first came into new England

- (7) Land Records of Grants and Deeds, Vol. II, p. 13, New London, Connecticut.
- (8) Land Records, Groton, Connecticut, Vol. II, p. 431. Deed of John, William and Joseph Gallup of Stonington, and Benadam Gallup of Groton to James Packer.
- (9) Williams, p. 158.
- (10) John Josselyn, "Account of Two Voyages to New England," (London 1675), Collections of the Massachusetts Historical Society, Vol. III, 3rd Series, p. 299. Boston, 1833.
- (11) Cotton Mather, Magnalia Christi Americana (London 1702), Hartford, Connecticut, 1855, Vol. I, p. 558.
- (12) Samuel Niles, "History of the French and Indian Wars," Massachusetts Historical Society Collections, Vol. VI, 3rd Series, Boston, 1837, pp.193-4.



tho' now but little used. A Gentleman of the Island of Nantucket, Where the Indians sometimes practice it, even at this Day, or very lately, gives me the following Relation.

"The Cave was usually four Foot high, and to eight Foot Diameter; the Roof supported with Sticks or Boards, covered with Earth, and they dug it in the Side of a Hill, and, as near as could be, to some River, Pond, or Place of Water. The Entrance into this Cave was small, and the Door (when any Person was sweating) was covered with a Blanket or Skin: near the Cave they Make a good large Fire, and heat a Parcel of Stones, to the Quantity of five hundred Weight, and roll them in red-hot, piling them up in the middle of the Cave; When this is done, the Indians go in Naked, and set round the heated Stones as Many as please; as soon as they begin to grow faint, which May be in a Quarter of an Hour, they come out, and plunge themselves all over in the Water for a Minute or two, and then in again, as long as they can bear it, and so in the Water a second Time, and then dress themselves. This has been used with Success for Colds, Surfeits, Sciaticas and Pains fixed in the Limbs, and even the English have many times found relief by it. I don't understand, but that it may be practised at any Time of the Year, without Hazard or Inconvenience. The Indians often used it before, and after long Journees, Hunting or Voyages, to strengthen and refresh themselves." (13)

The following references are to sweat houses and sweat-house procedure in the New York and Northern New England areas and are included to show the relationship between the Southern New England sweat-house trait and that of groups in adjacent territories.

De Vries (1655) wrote of the Indians about New York, "When they wish to cleanse themselves of their foulness, they go in the autumn, when it begins to grow cold, and make, away off, near a running brook, a small oven, large enough for three or four men to lie in it. In making it they first take twigs of trees, and then cover them tight with clay, so that smoke cannot escape. This being done, they take a parcel of stones, which they heat in a fire, and then put in the oven, and when they think that it is sufficiently hot, they take the stones out again, and go and lie in it, men and women, boys and girls, and come out so perspiring, that every hair has a drop of sweat on it. In this state they plunge into the cold water; saying that it is healthy, but I let its healthfulness pass; they then

become entirely clean, and are more attractive than before." (14)

John Gyles, who was captured in Maine in 1689 and held captive by the Penobscot Indians six years, closely observed many of their customs. He wrote an account of his captivity in which he mentioned the use of the sweat house in powwowing. Giles said, "The Indians are very often surprised with the appearance of ghosts and demons. Sometimes they are encouraged by the devil, for they go to him for success in hunting, &c. I was once hunting with the Indians who were not brought over to the Romanish faith, and after several days they proposed to inquire, according to their custom, what success they should have. They accordingly prepared many hot stones, and laying them in a heap, made a small hut covered with skins and mats; then in a dark night two of the powwows went into this hot house with a large vessel of water, which at times they poured on those hot rocks, which raised a thick steam, so that a third Indian was obliged to stand without, and lift up a mat, to give it vent when they were almost suffocated. There was an old squaw who was kind to captives, and never joined with them in their powwowing, to whom I manifested an earnest desire to see their management. She told me that if they knew of my being there they would kill me, and that when she was a girl she had known young persons to be taken away by a hairy man, and therefore she would not advise me to go, lest the hairy man should carry me away. I told her I was not afraid of the hairy man, nor could he hurt me if she would not discover me to the powwows. At length she promised me she would not, but charged me to be careful of myself. I went within three or four feet of the hot house, for it was very dark, and heard strange noises and yellings, such as I never heard before. At times the Indian who tended without would lift up the mat, and a steam would issue which looked like fire. I lay there two or three hours, but saw none of their hairy men, or demons. And when I found they had finished their ceremony, I went to the wigwam, and told the squaw what had passed. She was glad I had escaped without hurt, and never discovered what I had done. After some time inquiry was made of the powwows what success we were likely to have in our hunting. They said they had very likely signs of success, but no real ones as at other times. A few days after we moved up the river, and had pretty good luck." (15)

- (13) Paul Dudley, "Houses to Sweat In," Philosophical Transactions of the Royal Society, London, Vol. XXXIII, London, 1725, p. 129.
- (14) David Peterson DeVries, "Short Historical and Journal-Notes", Narratives of New Netherland, Original Narratives of Early American History Series, Scribners, 1930, pp. 217-218.
- (15) S.G. Drake, Tragedies of the Wilderness, "Captivity of John Gyles", Boston, 1841, pp. 91-92.



All of the early writers quoted, except Gyles, mention the use of sweat-houses for therapeutic purposes. The data they give also indicates that sweating was used for spiritual purification as well as to sweat out physical ills and cleanse the body. Niles found that Ninegret, just after a war threat, had "retired into an hot-house" Dudley spoke of their use by men about to embark on or after returning from "Journees, Hunting or Voyages". Gyles stated that the powwows resorted to them to inquire of the "devil" what success they would have in hunting. Williams and Mather stressed the social angle, when the men sat in the lodges an hour or more, sweating, taking tobacco and talking together. De Vries reported their use by "men, women, boys and girls".

The literature on the Northern New England and Maritime Provinces area is especially rich in references to religious and therapeutic uses of the sweat-house and should be assembled for the light which it will be able to throw on the whole sweat house trait.

None of the descriptions give any hint that the building of the sweat-house in Southern New England was accompanied by specific rites or ceremonies. This does not prove that there were no ceremonies practiced in connection with sweat-house construction among these Indians, however, for the significance of many things is lost unless the observer realizes the importance of details and the implications behind them. Then, too, the early colonists were notorious for turning a "blinde" eye toward anything that was to them indicative of idolatry and for that reason frequently failed to present a complete picture.

It is obvious from the evidence that several distinct types of construction were used in the building of sweat-houses in this area. Williams called the sweat-house "a kind of little Cell or Cave six or eight feet over, round, made on the side of a hill". Mather and Dudley also called the sweat-house a cave about eight feet in diameter. The sweat-house described by Dudley was built in the side of a hill but he added that the roof was "supported with Sticks or Boards, covered with Earth". (16) De Vries also mentioned "twigs of trees" covered "tight with clay, so that smoke cannot escape," made in the shape of a "small oven". (17) Niles said the sweat houses were partly sub-terranean and shaped like a "large oven". (18) Josselyn reported in time of stress the use of ordinary wigwams covered with extra bark and lined with

mats. (19) The sweat house seen by Gyles was "a small hut covered with skins and mats". (20)

The accounts also indicate that sweating was produced by different methods, although some lack of uniformity in this as well as in the particulars of construction may be due to neglect on the part of the observer to include sufficient detail.

Gyles, De Vries, Dudley, and Niles stated that stones were heated in a fire outside the lodge and rolled inside after they were red hot. (21) De Vries added the fact that the stones were rolled outside again before the Indians entered to sweat. (22) Williams said the fire was built on a heap of stones in the wigwam and raked out before the men entered. (23) All writers, except Gyles, who did not wait for the end, noticed that the sweat-bath was finished by a plunge into cold water.

Although no early description of Pequot sweating procedure has as yet come to light, the customs of the Narraganset and Pequot were in many ways similar. Undoubtedly Williams description of the sweat house and sweating gives us a fairly accurate picture of what took place at Pesapungganute and we can safely imagine the Pequot Indians jumping into "Old Sal's Brook" to cool off.

University of Pennsylvania  
June, 1945

(16) Dudley, p. 129.

(17) De Vries, p. 127.

(18) Niles, p. 194.

(19) Josselyn, p. 299.

(20) Gyles, p. 91.

(21) Gyles, De Vries, Dudley, Niles, op. cit.

(22) De Vries, p. 218.

(23) Williams, p. 158.



## SWEAT-HOUSE TRAITS IN SOUTHERN NEW ENGLAND

TRIBE	LOCATION	PURPOSE	USED BY	NO. USING AT TIME	TOBACCO USED DURING SWEATING	CONSTRUCTION	HEAT PRODUCED BY	SOURCE	DATE
PENOBSCOT	Maine Coast Central	Divination	Shamans	2		Separate hut, skin & mat covered	Hot stones	Giles p.91-2	1689
PENNA-COOK (?)	Southern Me. North. Mass.	Therapeutic	All	Many		Regular wigwam extra bark cover	Fire inside	Josselyn p.299	1675
(?)	Massachusetts	Therapeutic	?	Crew	Smoked	Little cave 8 ft. over	Pre-heated	Mather p.558	1702
NANTUCKET INDIANS	Nantucket Island, Mass.	Therapeutic Bef. & after hazardous excursions	?	Many		Cave 4' high, 8' diam. Roof of sticks, earth covered. Hillside	Stones heated outside	Dudley p.129	1725
NARRAGANSET	Rhode Island	Therapeutic Cleansing	Men	10, 12, 20	x	Cave or cell 6 or 8 ft. Round Hillside	Stones heated inside	Williams p.158	1642
EASTERN NEHANTIC	Block Island	Therapeutic	?	2 or 3		Oven shaped vault. Partly underground	Stones heated inside	Niles p.193-4	1675-1760
PEQUOT	Paucatuck River, Stonington, Conn.	?	?	?	?	?	?	Stonington Ld. Rec., Vol.V, p.470	1745
PEQUOT	Noank, Conn.	?	?	?	?	?	?	Groton Ld. Rec. Vol.I, p.816	
MOHEGAN	Montville, Conn.	?	?	?	?	?	?	New Lond. Ld. Rec. Vol.IX, p.149	1730
(?)	South-eastern New York	Therapeutic Cleansing	Men Women Child.	3 or 4		Small oven of twigs earth covered	Stones heated outside	De Vries p.217-18	1655



## A STONE KNIFE FROM SALEM WILLOWS

Ernest S. Dodge

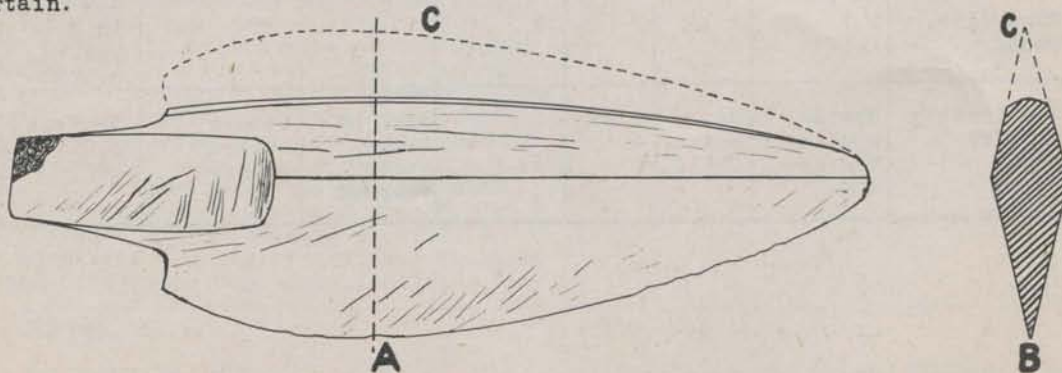
The accompanying sketch is a drawing of a stone knife found in May 1938, at Salem Willows. This specimen which is catalogued "A 4341" in the Peabody Museum of Salem, was collected by a workman of a local W.P.A. Project, which was engaged in building a wall around the grounds surrounding the Smith Memorial Swimming Pool. The spot where the knife was found is near the westernmost end of that section of the wall running parallel with the Salem Willows road. At this point the excavation for the base of the wall runs through a much disturbed shell heap. The area that the shell heap originally covered is impossible to determine, for the building of roads and other activities of the last three hundred years, have obliterated most of it. The small part of the shell heap cut by the wall consisted of from six to eight inches of broken clam shells mixed with light stony soil, immediately below the turf. Although the shells do not look particularly old, the only historical reference I was able to find to an Indian encampment in this locality is in Perley who says, "There were other small shell heaps on Salem Neck and near the 'mill pond' on the South River." (1) Osgood and Batchelder say that the only Indian encampments of consequence in the Salem region were on the north side of the North River and on the Marblehead shore of Salem Harbor. (2) In any case, this small deposit of clam shells does not indicate any very large or extended occupation of this site.

So far as is known, no other specimens, in addition to the knife, were found among these shells and due to the excavating for the wall's base, the exact position of the knife among the shells was impossible to ascertain.

The knife measures six inches long, one and eleven-sixteenths inches deep and nine-sixteenths of an inch thick. The stone from which the tool is made is a slaty-schist with some mica intrusions. This may possibly have come from Nahant as there is similar material there.

The form of the knife is unusual and I think deserves comment. Figure A is a side view and figure B a cross section taken at the point indicated by the vertical dotted line in A. It may be described as resembling the form of a steel hunting knife as closely as this form could be reproduced in stone, and still remain useful. Also, there is some resemblance to the familiar semi-lunar knives except that our specimen is fitted for a handle to be attached at one end, and is not symmetrical. It has also been suggested that this specimen may have originally been double-edged as indicated by the dotted line "C". One edge being broken, it may then have been worked down to form a neat single-edged knife with a smooth, curved back and an extraordinarily sharp edge. The knife is covered with straight scratches, some, particularly around the haft, look as though they may have been made with a metal tool.

Peabody Museum of Salem  
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(1) Sidney Perley, "The History of Salem Massachusetts" (Salem 1924) Vol. I, p. 32.

(2) Charles S. Osgood and H.M. Batchelder, "Historical Sketch of Salem" (Salem, 1879) p. 9.